



**United States  
Department of  
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**Agricultural  
Marketing  
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**Fruit and  
Vegetable  
Division**

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Branch**

# **United States Standards for Grades of Shelled Pistachio Nuts**

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## United States Standards for Grades of Shelled Pistachio Nuts

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### **§51.2555 General.**

(a) Compliance with the provisions of these standards shall not excuse failure to comply with provisions of applicable Federal or State laws.

(b) These standards are applicable to raw, roasted, or salted pistachio kernels; or any combination thereof. However, nuts of obviously dissimilar forms shall not be commingled.

### **§51.2556 Grades.**

(a) "U.S. Fancy," "U.S. No. 1," and "U.S. No. 2" consist of pistachio kernels which meet the following basic requirements:

(1) Well dried, or very well dried when specified in connection with the grade.

(2) Free from:

(i) Foreign material, including in-shell nuts, shells, or shell fragments.

(3) Free from damage by:

(i) Minor mold;

(ii) Immature kernels;

(iii) Spotting; and,

(iv) Other defects.

(4) Free from serious damage by:

(i) Mold;

(ii) Minor insect or vertebrate injury;

(iii) Insect damage;

(iv) Rancidity;

(v) Decay; and,

(vi) Other defects.

(5) Unless otherwise specified, kernels shall meet the size classification of Whole Kernels (See §51.2559).

### **§51.2557 Tolerances.**

(a) In order to allow for variations incident to proper grading and handling, the tolerances, by weight, in Table I are provided.

| Table I                             |            |            |            |
|-------------------------------------|------------|------------|------------|
| Factors<br>(Tolerances by Weight)   | Percent    |            |            |
|                                     | U.S. Fancy | U.S. No. 1 | U.S. No. 2 |
| (a) Damage                          | 2.0        | 2.5        | 3.0        |
| (b) Serious Damage                  | 1.5        | 2.0        | 2.5        |
| (1) Insect Damage (included in [b]) | .3         | .4         | .5         |
| (c) Foreign Material                | .03        | .05        | .1         |

**§51.2558 Application of tolerances.**

The tolerances for the grades apply to the entire lot and shall be based on a composite sample representative of the lot. Any container or group of containers which have kernels obviously different in quality or size from those in the majority of containers shall be considered a separate lot and shall be sampled separately.

**§51.2559 Size classifications.**

(a) The size of pistachio kernels may be specified in connection with the grade in accordance with one of the following size classifications.

(1) Whole Kernels: 80 percent or more by weight shall be whole kernels and not more than 5 percent of the total sample shall pass through a 16/64 inch round opening, including not more than 1 percent of the total sample shall pass through a 5/64 inch round opening.

(2) Whole and Pieces: 40 percent or more by weight shall be whole kernels and not more than 15 percent of the total sample shall pass through a 16/64 inch round opening, including not more than 2 percent of the total sample shall pass through a 5/64 inch round opening.

(3) Large Pieces: Portions of kernels of which not more than 10 percent will remain on a 24/64 inch round opening, provided that not more than 20 percent of the total sample shall pass through a 16/64 inch round opening, including not more than 2 percent of the total sample shall pass through a 5/64 inch round opening. Not more than 25 percent of the total sample shall be whole kernels.

(4) Small Pieces: Portions of kernels of which not more than 10 percent will remain on a 16/64 inch round opening, provided that not more than 3 percent of the total sample shall pass through a 5/64 inch round opening. Not more than 3 percent of the total sample shall be whole kernels.

(5) Mixed sizes: Means a mixture of any combination of whole kernels or pieces. The percentage of whole kernels and/or pieces may be specified. Not more than 5 percent of the total sample shall pass through a 5/64 inch round opening.

**§51.2560 Definitions.**

(a) "Well dried" means the kernel is firm and crisp.

- (b) "Very well dried" means the kernel is firm and crisp and the average moisture content of the lot does not exceed 7 percent of lower levels, if specified (See §51.2561).
- (c) "Foreign material" means leaves, sticks, in-shell nuts, shells or pieces of shells, dirt, or rocks, or any other substance other than pistachio kernels. No allowable tolerances for metal or glass.
- (d) "Whole kernel" means 3/4 of a kernel or more.
- (e) "Pieces" means less than 3/4 of a kernel.
- (f) "Damage" means any specific defect described in paragraph f (1) through (3) of this section or an equally objectionable variation of any one of these defects, any other defect, or any combination of defects, which materially detracts from the appearance or the edible or marketing quality of the individual kernel or of the lot. (For tolerances, see §51.2557, Table I.)
- (1) "Minor white or gray mold" is mold that is not readily noticeable on the kernel and which can be easily rubbed off with the fingers.
- (2) "Immature kernels" are excessively thin kernels.
- (3) "Kernel spotting" refers to dark brown or dark gray spots aggregating more than one-eighth of the surface of the kernel.
- (g) "Serious damage" means any specific defect described in paragraph g (1) through (5) of this section, or an equally objectionable variation of any one of these defects, any other defect, or any combination of defects, which seriously detracts from the appearance or the edible or marketing quality of the individual kernel or of the lot. (For tolerances see §51.2557 Table I.)
- (1) "Mold" which is readily visible on the kernel.
- (2) "Minor insect or vertebrate injury" means the kernel shows conspicuous evidence of feeding on the kernel.
- (3) "Insect damage" is an insect, insect fragment, web, or frass attached to the kernel. No live insects shall be permitted.
- (4) "Rancidity" means the kernel is distinctly rancid to taste. Staleness of flavor shall not be classed as rancidity.
- (5) "Decay" means any portion of the kernel is decomposed.

**§51.2561 Average moisture content.**

- (a) Determining average moisture content of the lot is not a requirement of the grades, except when kernels are specified as "very well dried." It may be carried out upon request in connection with grade analysis or as a separate determination.
- (b) Kernels shall be obtained from a randomly drawn composite sample. Official certification shall be based on the air-oven method or other officially approved methods or devices. Results obtained by methods or devices not officially approved may be reported and shall include a description of the method or device and owner of any equipment used.